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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/442,868

11/18/1999

WALTER C. LIN

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DLA PIPER US LLP
2000 UNIVERSITY AVENUE
E. PALO ALTO, CA 94303-2248

EXAMINER

ABDULSELAM, ABBAS I

ART UNIT

PAPER NUMBER

2629

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/442,868	Applicant(s) LIN, WALTER C.	
	Examiner ABBAS I. ABDULSELAM	Art Unit 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 May 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-9, 11-19, 21-25 and 27-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-9, 11-19, 21-25 and 27-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in response to a communication filed on 05/05/2008. Claims 1-3, 5-9, 11-19, 21-25 and 27-36 are pending. Claims 4, 10, 20, and 26 are cancelled.

Response to Arguments

2. Applicant's arguments with respect to claims 1-3, 5-9, 11-19, 21-25 and 27-36 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3, 5-9, 11-19, 21-25 and 27-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yui et al. (USPN 6181330) in view of Pang (USPN 6061053).

Regarding claims 1, and 17, Yui et al. (hereinafter "Yui") teaches a method of communicating digital data from a computer system to a display device (***Fig. 1 (9), col. 2, lines 1-45, outputting digital R, G, B signals with respect to video display device (9)***) comprising: receiving an analog video signal from a computer system (***Fig. 1 (2, 3), col. 2, lines 30-33, a video circuit (2) outputting amplified analog R, G, B signals to A/D converter (3)***); sampling the analog video signal to provide digital data (***Fig. 1 (3), col. 2, lines 33-37, the A/D converter (3) samples the analog, and converts them to digital R, G, B signals R, G, B signals***) ;

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detecting a predetermined data pattern from the digital data(*Fig. 1 (6, 7), col. 2, lines 47-57, a microcomputer 6 calculates the frequency of the horizontal and vertical synchronizing signals, and furthermore outputs a specified frequency division ratio to a PLL circuit 7 based on the calculated frequency of horizontal and vertical synchronizing signals, note that as shown in Fig.1, all signals directing to scan converter (8) including the one that comes from the microcomputer (6) are digital signals*), wherein the predetermined data pattern corresponds to a frequency or resolution parameter of the analog signal (*Fig. 1 (6, 7), col. 2, lines 47-57, a microcomputer 6 calculates the frequency of the horizontal and vertical synchronizing signals, and furthermore outputs a specified frequency division ratio to a PLL circuit 7 based on the calculated frequency of horizontal and vertical synchronizing signals*), and in response to detection of the predetermined data pattern, commencing a set-up process for converting a video signal into a display image of improved format for display on the display device, (*Fig. 1 (8, 9), col. 2, lines 61-67, the scan converter 8 is driven by the clock signal CLK output from the PLL circuit 7. The scan converter 8 converts the horizontal and vertical synchronizing signals output from the synchronizing separator 4 and the digital R, G, and B signals output from the A/D converter 3 to the number of picture elements displayable on a video display device 9 based on the control signal from the microcomputer 6*).

While Yui teaches as shown FIG. 1 a horizontal display width adjusting circuit, vertical display width adjusting circuit, and a video display device employing the adjusting circuits (col. 2, lines 15-18)

Yui does not specifically teach the improved format enabling more accurate display of original image data

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize display width adjusting circuits as illustrated in Fig. 1 for the purpose of manipulating a display format, because altering the size of the display would change the format and quality of the display.

While Yui teaches as mentioned above (referring Fig. 1), the A/D converter (3) sampling the analog signal, and the scan converter 8 converting the digital R, G, and B signals output from the A/D converter 3 to the number of picture elements,

Yui does not teach the set up process as including adjusting sampling via a feedback component.

Pang on the other hand teaches as shown in FIG. 3 an automatic gain control (AGC) device 30 to be used in a displaying device such that the AGC device 30 includes an A/D (analog digital converter) 32, and a feedback circuit 34, wherein the feedback circuit 34 comprises, a first D/A 38, and a second D/A that are used for converting an upper digital signal generated by a processor 36 at port 58 into an upper reference voltage over port 52, and for converting the lower digital signal generated by the processor 36 at port 60 into a lower reference voltage over port 54, respectively (col. 2, lines 27-65).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Yui's A/D converter 3 (along with a scan converter 8) shown in Fig. 1 with Pang's A/D converter 32 and a feedback circuit 34 as configured in Fig. 3, because the use of A/D converter 32 and a feedback circuit 34 enables an LCD device to convert an analog color signal received from a VGA (video graphic array) card into a digital color signal as taught by Pang (col. 1, lines 45-49).

Regarding claims 2 and 18, Yui teaches the predetermined data pattern occurs a predetermined time interval after a horizontal sync pulse which is associated with the analog video signal (*col. 2, lines 50-57*).

Regarding claims 3 and 19, Yui teaches the predetermined data pattern occurs outside of a blanking interval for the analog video signal (*col. 4, lines 31-36*).

Regarding claims 5, 21, 33-34, Yui teaches the set-up process includes adjusting a sampling rate for sampling the analog video signal (*col. 2, lines 47-60*).

Regarding claims 6 and 22, Yui teaches the set-up process includes adjusting a sampling phase for sampling the analog video signal (*col. 2, lines 58-60, col.3, lines 6-11*).

Regarding claims 7 and 23, Yui teaches the set-up process includes adjusting an orientation of a display image for the display device (*col. 2, lines 50-57*).

Regarding claims 8 and 24, Yui teaches said adjusting an orientation of the display image comprises adjusting a sampling start time for the analog video signal relative to a horizontal sync pulse (*col. 2, lines 50-60*).

Regarding claims 9 and 25, Yui teaches said adjusting an orientation of the display image comprises adjusting a sampling start time for the analog video signal relative to a vertical sync pulse(*col. 2, lines 50-60*).

Regarding claims 11, 27 and 35-36, Yui teaches the-parameter is representative of a resolution of the analog video signal (*col. 2, lines 47-60*)

Regarding claims 12 and 28, Yui teaches the analog video signal is formed in accordance with a clock signal, the parameter being representative of a frequency of the clock signal (*col. 2, lines 47-57*).

Regarding claims 13 and 29, Yui teaches the predetermined data pattern is representative of a beginning of a horizontal blanking interval relative to a horizontal sync pulse for the analog video signal (*col. 2, lines 47-57*),

Regarding claims 14 and 30, Yui teaches the predetermined data pattern is utilized for adjusting a horizontal orientation of a display image for the display device (*col. 2, lines 47-57*).

Regarding claims 15-16 and 31-32, Yui teaches the predetermined data pattern is representative of a beginning of a vertical blanking interval relative to a vertical sync pulse for the analog video signal (*col. 2, lines 47-57, col. 4, lines 31-36*).

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the

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examiner should be directed to Abbas I. Abdulsalam whose telephone number is 571-272-7685.

The examiner can normally be reached on Monday through Friday from 9:00 A.M. to 5:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor,

Richard Hjerpe, can be reached on 571-272-7691. The fax phone number for the organization

where this application or proceeding is assigned is 571-273-8300. Information regarding the

status of an application may be obtained from the Patent Application Information Retrieval

(PAIR) system. Status information for published applications may be obtained from either

Private PAIR or Public PAIR. Status information for unpublished applications is available

through Private PAIR only. For more information about the PAIR system, see [http://pair-](http://pair-direct.uspto.gov)

direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the

Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Abbas I Abdulsalam/

Primary Examiner, Art Unit 2629

May 12, 2008